lenstarre ist bereits beginnende Tabes." In some cases the loss of light reflex is unilateral. A slow reflex is of import; and at times (it has seemed to me more often in the pseudo-tabes of cerebrospinal lues) reaction to accommodation is lost as well as to light. Small irregular pupils in a young adult are suspicious, especially if there be a sudden irregular cleft in an otherwise unchanged outline. A man seen two years ago had been operated upon for gastric ulcer, although inactive pupils should have suggested the possibility of gastric crises. A man seen two years ago had a hard tumor of the right testicle, marked arteriosclerosis and Argyll-Robertson pupils. A man examined last year had nephrorraphy done for relief of pain due, in light of inactive pupils and absent Achilles jerks, to disease of the dorsal nerves. It is so easy to examine pupils as a matter of routine, and so much may be learned, that it is a matter of constant surprise that so little attention is paid to them. An Argyll-Robertson pupil may shed new light upon an indefinite neurasthenia, an obstinate trigeminal or intercostal neuralgia, an aortic insufficiency of dubious etiology, a mysterious stomach affection, or a persistent paroxysmal cough.

It is impossible to lay too much stress upon the importance of the ophthalmoscope in diagnosis. A specific choroiditis, an optic neuritis or a primary or secondary optic atrophy may give valuable hints of specific disease. A man seen three years ago had been treated for several months as a stomach case by reason of frequent vomiting and indefinite abdominal pain. An optic neuritis was the first suggestion that the underlying cause was cerebrospinal syphilis. Mention has been made above of a case regarded as one of nervous breakdown, in which the peculiar mental hebetude, an optic neuritis and a perforation of the nasal septum led to the recognition of the syphilitic origin.

8. *Vascular Changes.* Early arteriosclerosis, if not due to kidney or adrenal disease, lead or diabetes, is most suspicious of syphilis. A persistent high blood pressure without marked arterial change has in several instances suggested the possibility of a luetic cause. Aneurism is nearly always a syphilitic product or by-product; out of fifteen cases seen in private work all but two gave positive history or signs of a previous syphilitic infection. It is frequent in patients with old syphilis to find evidence of an aortitis—pain under the sternum, angina attacks, a dilated arch, an accentuated aortic second, a systolic aortic murmur, insufficiency of the aortic valves. Conversely the determination of such signs without satisfactory explanation should suggest the possibility that the patient has had syphilis. A young woman observed last year in hospital had syphilis of the nervous system, a large liver and a dilated aortic arch with a systolic aortic murmur and accentuated second. In a case cited above of diplopia with pleocytosis, there was an aortic insufficiency without history of usual infectious causes. The frequency of aortic insufficiency in tabes is well known. Myocardial insufficiency in young or middle-aged men rests not uncommonly on a syphilitic basis, and will be benefited far more by mercury than by digitalis. Mueller and Rogge from Struempell's clinic have lately emphasized the frequency of diseases of the circulatory system as a result of syphilis. (Tabes dorsalis, Erkrankungen der Zirkulationsorgane und Syphilis. Deutsch. Archiv fuer klinische Medizin. Bd. 89, S. 514.)

9. *Nervous System.* It requires but a few words to elicit the important suggestive history of lancinating pains, diplopia or sphincter disturbance. A few minutes suffice to examine pupils, to test the knee and Achilles jerks, to determine ulnar hypalgesia or hypalgesia over the trunk, to glance at the eye grounds, and yet the facts so determined may be of far reaching importance in diagnosis and treatment. Erb has recently contributed a valuable paper, "Ueber die Diagnose und Fruehdiagnose der Syphilogenen Erkrankungen des zentralen Nervensystems." (Deutsche Zeit f. Nervenheilkunde. Bd. 33, S. 425.) He recalls particularly the diagnostic help of lumbar puncture in determining a lymphocytosis of the cerebrospinal fluid, "in zweifelhaften Faellen, wo der klinische und anamnestische Nachweis der Syphilis nicht gelingt, der Nachweis der spinalen Pleocytose das Vorhandensein der syphilitischen Durchseuchung in hohem Grade wahrscheinlich macht, ja fast sicherstellt, wenn alle klinischen Momente genau erwogen werden." In several syphilitic cases in hospital recently lymphocytosis of the spinal fluid has been determined, both in presence and absence of nervous symptoms, but it would seem a sign to use only in correllation with other findings.

10. *Unclassified Signs.* Justus hemoglobin test has wisely been abandoned. The curious intolerance of old syphilitics toward minute doses of copper reported by Brice (*Med. Rec.,* Nov. 10, 1903) has not been tested.

Certain trophic disorders may suggest syphilis—the painless loss of teeth, perforating ulcers, Charcot joints. During the last year two methods of diagnosis by serum reactions have been elaborated and extensively published. These are the precipitin reaction and the method by fixation of the complement. Review of literature may be had in the article of Erb quoted above.

Syphilis is a common disease amongst us. We meet it under many masks and in many unsuspected places. Its symptoms are legion, its signs protean. It strikes often at long range, and may attack almost any organ, and may injure in varied ways. A review of the signs that may be read as we run has seemed not unnecessary in light of my own and others' shortsightedness.

SYPHILIS AS SEEN BY THE EYE, EAR, NOSE, AND THROAT SPECIALIST.*

By HAYWARD G. THOMAS, M. D., Oakland.

In considering this subject, my conclusion is that we specialists see a great deal more of syphilis than we should, for the reason that it is the least recognized and the poorest treated disease in general.

* Read at the Thirty-Eighth Annual Meeting of the State Society, Coronado, April, 1908.

Sometimes we see a case that comes with a diagnosis of syphilis from a general practitioner. The majority, however, we discover for ourselves, and where no previous diagnosis has ever been made. Some of these are the innocent wives or children of syphilitic men; others who know they have the disease and give a history of some months' treatment for it anywhere from five to twenty-five years before; others who have had all sorts of symptoms and signs, and have been treated for all sorts of things—"catarrh," "sore throat," "malaria,"—and we find old scars in evidence in the soft palate and pharynx or a pronounced retino-choroiditis—the first sign of cerebral syphilis—and so on, through a long list.

Whose fault is this? The patient's mostly, for the average patient quits after the to-him-visible lesion is cured. The profession at large is at fault for the rest, for so many intelligent men tell us that they were treated for several months and discharged as cured, and I find that it is, or was, the view of not an inconsiderable number of the profession that many cases needed little treatment and will get well of themselves. The laymen know or learn just what we teach them so the onus is on us. Hence my statement that it is the least recognized and poorest treated disease.

We specialists see but rarely the primary lesions, and not much oftener the ordinary secondary lesions. Therefore, it will be mainly the tertiary lesions that I will bring before you, and instead of citing a lot of cases, I will deal with them principally in view of their diagnostic value.

Syphilis is the one disease that comes most largely into the etiology of eye diseases. Let us take a list of the principal ones:

Iritis, acute and chronic.
Irido cyclitis, irido choroiditis.
Phlyctenular keratitis.
Interstitial keratitis.
Paralyses of ocular muscles.
Periostitis of the orbit.
Tumors of the orbit.
Ptosis, especially bilateral.
Many lacrimal strictures.
Deep scleritis.
Retino choroiditis.
Many juvenile cataracts.
Optic neuritis or papillitis, with hemorrhages into retina.
Optic atrophy.
Ocular symptoms preceding the others, of Tabes.

Notice that it attacks every tissue of the eye from the cornea to the optic nerve. Of iritis, sixty per cent are credited to syphilis, usually in the secondary stage, and about thirty per cent to rheumatism, but what I can learn and have been shown of old rheumatic cases, the pains and tenderness have very frequently been found in the middle of the long bones, and the pain mostly at night, too, so I have my doubts of the thirty per cent due to rheumatism.

Consider the large number of cases of interstitial keratitis we meet; always hereditary syphilis, and from patients of whom we can elicit no knowledge of causes. We get syphilitic history plainly when we question the parents, but no history of treatment. One recognizes at a glance the dish-faced creatures with their aged look, the rhagades around the mouth, the notched and pegged teeth, and generally dull appearance which accompanies these cases.

Irido choroiditis is not so uncommon, and I remember Bergmeister of Vienna saying that if the Pope himself came with this eye disease he would say syphilis.

Many cases come that have such slight signs that we can only suspect, but it is the suspicion that often puts us on the right scent; the presence or absence of other confirmatory signs besides the therapeutic test telling the tale.

Not infrequently we are tripped up by the, apparently, refraction case that comes in to be cured of her chronic headaches, supraorbital usually. There is also often a little middle ear trouble, just a suggestion of hardness of hearing, may be a little tinnitus. All these symptoms are common enough not to excite suspicion at first of syphilis. We find in the beginning that the visual acuity is not of the very best, though not sufficiently below the normal to excite comment. Neither do the glasses increase the vision, and the patient soon comes back with her headaches. Inflation of the ear does not help her as it should in such a recent case. We examine the fundus again; there is a faint suggestion in the vessels and color of the retina and nerve that they are a little off-color, which did not impress us before. We have, simply, tripped up. Taking or sending the patient to a general practitioner, the body is gone over thoroughly, the suspicion of syphilis is confirmed, and the "off-color" of the nerve and retina was the first stage of retino choroditis.

On the other hand, while we are smarting under this slip, comes a fairly young person with all these symptoms well marked—distinct loss of visual acuity with a slight refractive error, marked dullness of hearing, growing lack of comprehension, vacancy of facial expression, slowness of walk,—all these combined with undoubted retino choroiditis, and there is no doubt of the diagnosis.

Take another type: an elderly man comes in, introduced by his parson. I notice that the man is cross-eyed, and that is what he came to see me about. As he took hold of my hand, I noticed there was no grip whatever. His eye trouble was of a couple of months' duration. He had been treated by two general practitioners of standing, for stomach complaint, that, of course, to them being the cause of his eye affection. Elixir Lactopeptin I. Q. and S. from one, and I know it was a popular iron nostrum from the other. Looking further, I saw he had a facial paralysis, very slight but plainly brought out; plenty of scars in his soft palate and pharynx for which he had been treated three months the year before, but with no suggestion of specific trouble or treatment indicating a suspicion of it. I took the man at once to a G. U. specialist who immediately stripped him. The patient was like a sandwich

man; with signs all over him. I really find no excuse for the failure to recognize this case as one of syphilis, except the great rush to prescribe for a symptom and "call the next case."

The nose and throat do not present such a variety of lesions as the eye, and the ear reveals but little of interest in a diagnostic way.

In the nose and throat we see usually only the tertiary lesions. We find severe and extensive lesions involving the mucous, cartilaginous and bony parts. There are gummatous nodules or diffuse inflammatory processes in the submucosa. Untreated, the gumma breaks down as it does elsewhere, and foul, deep erosions take place. The bones and cartilage, being attacked, become spongy, honeycombed, filled with granulations, the bone being finally cast off. If extensive, I have only to mention the saddle nose with which you are all familiar. These tertiary lesions are hard to mistake. In the first stage, there are swelling and redness of the membrane, septum doughy, and all parts looking like stuffed cushions. The membrane becomes soon markedly paler, peculiarly so, and this is preliminary to the breaking down stage. Untreated, we soon see this, and we usually find a conglomerate mass of granulations, all landmarks gone as to what is septum or turbinate, discharging profusely and stinking horribly.

I find not a few cases of nasal polypi combined with antral suppuration, due to syphilitic necrosis in the ethmoid cells. After having cleaned out several nasal cavities and finding antral suppuration that others had overlooked, and then suddenly finding some tertiary ulceration in the soft palate, I concluded I was not a miracle worker myself.

This is not the history always, and we find cases that have gone a milder course, leaving a perforation of the septum, and possibly necrosis in the ethmoid, which keeps up for years a chronic little discharge. In diagnosing a case, if you had one come to you with severe crisis headaches, perforation of septum and necrosis of the ethmoid, would you give syphilis a passing thought?

We cannot overlook the otitis media cases that have been lightly touched on before. These may come either from the secondary patches around the eustachian orifice or gummata or tertiary ulcerations in the same locality. This subject is alone worth a longer and entire paper.

As syphilis tends to glandular enlargement, I wonder if sufficient thought has been given to it as a factor in the etiology of adenoids and tonsils, especially when the infant is born with an enlarged adenoid and has the snuffles, for, unfortunately, I know adenoids are not recognized in infants even when the poor things cannot nurse on account of "the snuffles,"—the direct result of adenoids.

Now, when all the children of a family have enlarged tonsils and adenoids from their entrance into this world, a certain proportion of these cases, I am certain, is from syphilis; but the question of these glands is not discussed as it ought to be and that could well be considered at some other time.

The larynx comes next and cannot escape you for everybody knows when a man is hoarse, and you cannot ignore syphilis when you are considering the larynx. You will consider tuberculosis, lupus, carcinoma, and syphilis. The majority come down to the great two, tuberculosis and syphilis. Sometimes you forget that you can have both these in the same box, and only treat the one. And do not forget that. I will not go into the differential diagnosis. I have only tried to tell you what the specialist sees in his regular work, and the things that make him constantly on the lookout for syphilis, and why. We specialists cannot forget it for a minute, for it crops up in so many forms that we have less excuse for overlooking it than the general practitioner.

SYPHILIS OF BONES AND JOINTS.*

By S. J. HUNKIN, M. D., San Francisco, and GEORGE A. HARKER, M. D., San Francisco.

In speaking of lues as it involves bones and joints it appears best to give the salient points of a few case histories, not as a report of cases, but rather to present ordinary types as they appear with their characteristic marks to the orthopedic specialist. We are not intending to consider in this connection the trophic joints, for they are not luetic in the sense of this paper. Also we shall not speak of the classical hyperostosis of the tibia for you are all familiar with it. We shall rather deal with pathological conditions, which although fairly certainly syphilitic, are not usually suspected, and which are much more often encountered than we were wont to believe. They come to us labeled "growing pains," "rheumatism," "traumatic conditions" and the severer types are usually considered tuberculous. The part played by traumatism in the history of so many of the cases is so definite that we are led to consider it a factor—a factor not in the dyscrasia of course, but in the development of the bone or joint manifestation. This record of injury is not the somewhat indefinite remembrance of a fall or a twist which is so often remembered after the development of a tubercular osteitis, but rather there is the story of the injury, the bruise, the swelling, the disease, all following so closely on one another that it cannot be disregarded. It is, however, true that a tuberculous osteitis may develop rapidly upon an injury, but generally there is a period of ordinary function intervening.

Case 1. Girl 12 years of age. Family history negative, excepting that the mother is in an insane asylum. Diagnosis. Right hip disease of 4 years' standing. Severe type with several discharging sinuses. There was not so much shortening as is usual with so extensive disease, after such a period, though the significance was not realized at this time. The child also had spina ventosa of the 1st metacarpal bone in one hand, and of the 3rd metacarpal in the other. She did badly while under observation for several months, then the hip was resected, but she still did badly both locally and generally.

A sister was then noticed to have keratitis and Hutchinson teeth, and stigmata of syphilis were demonstrable in other members of a large family. The patient also, on further examination, was found to be developing fairly typical teeth which had before passed without comment. Under specific treat-

* Read at the Thirty-Eighth Annual Meeting of the State Society, Coronado, April, 1908.